



NATIONAL CENTRE OF EXPERTISE
ON MARITIME PILOTAGE

**MASS AND RELATED
TECHNOLOGIES:
THE PRACTICAL IMPLICATIONS
FOR PILOTS AND PILOTING**

IMPA 26th CONGRESS

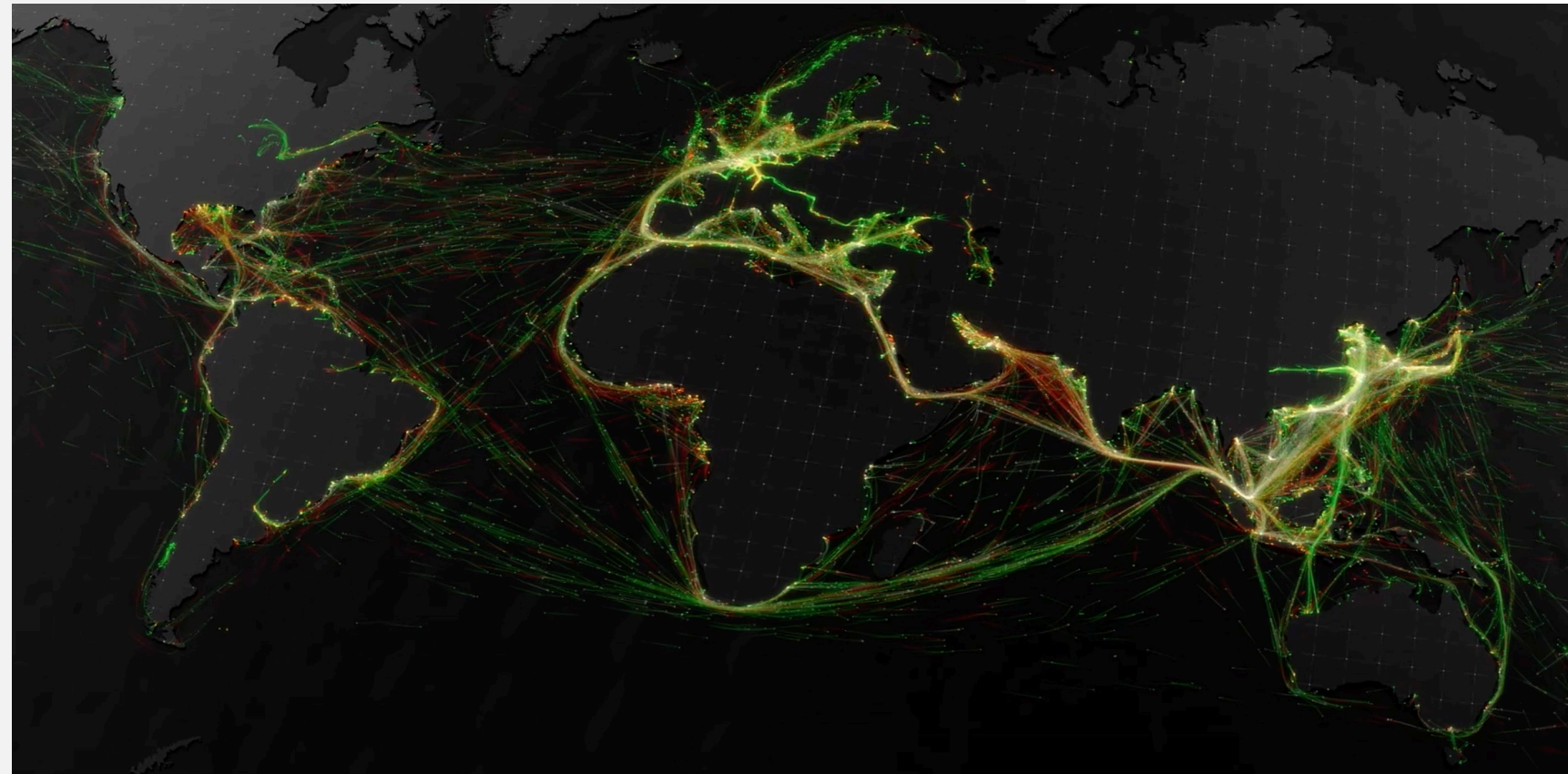
Rotterdam 2024

Capt. Alain Arseneault, MM, MBA
Executive Director

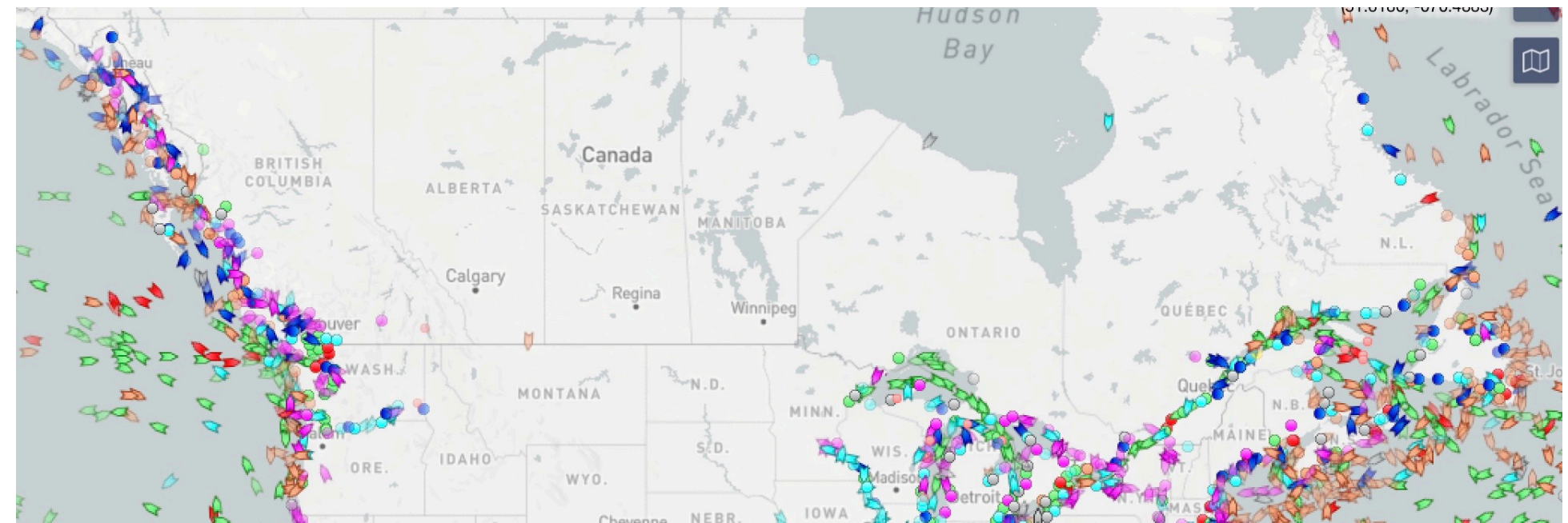


The National Centre of Expertise on Maritime Pilotage is the technical body of the Canadian Marine Pilots, bringing together the extensive technical expertise and professional know-how of Canada's licensed pilots, from Newfoundland to Vancouver Island.

Piloting into the future



MarineTraffic March 2018

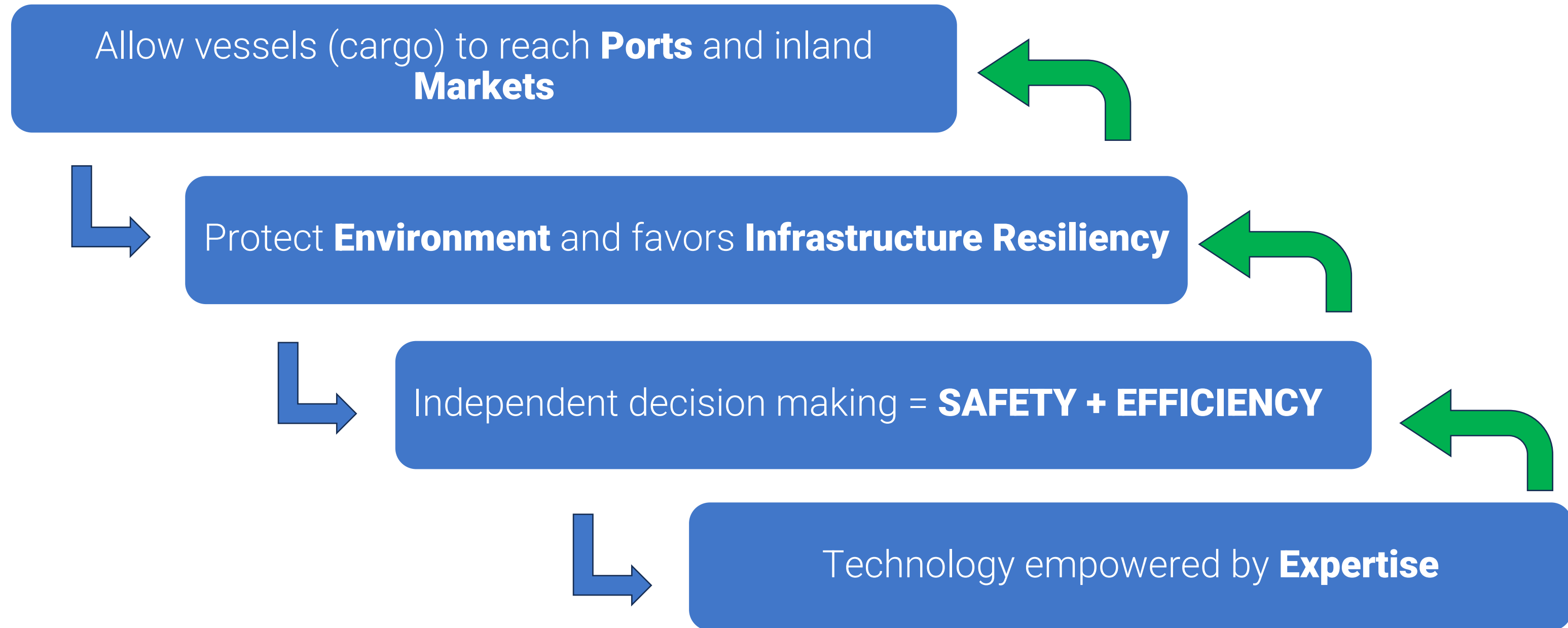


MarineTraffic Sept.12th 2023

Bridging the gap between oceans and ports

Piloting into the future

Pilotage Life Cycle



Piloting into the future

**MASS
PARALLEL
UNIVERSE**

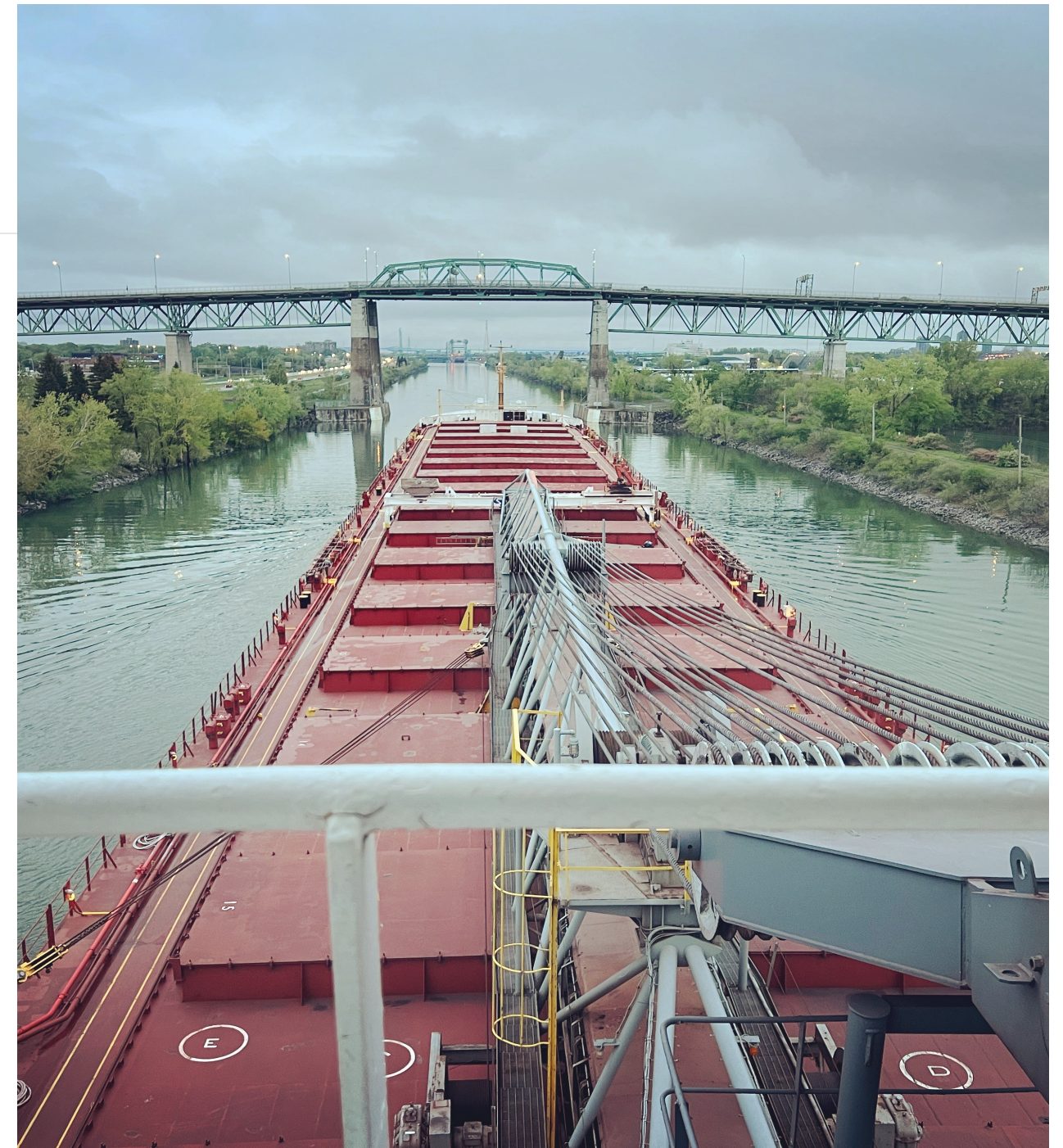
- **ConOps**
- **ANS**
- **OE**
- **ODD**
- **Fallback State**



When software engineers get involved...

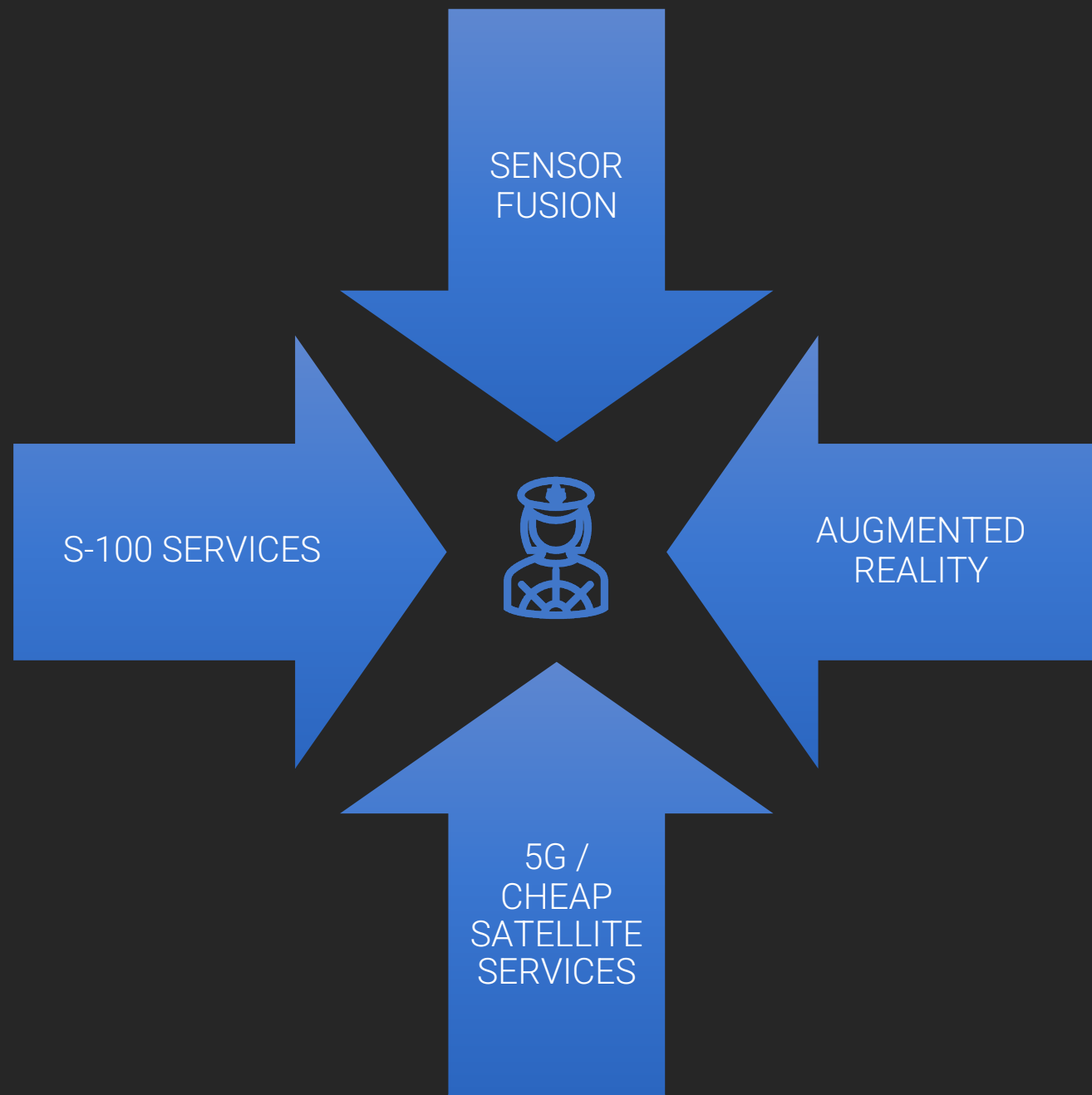
In the mean time

- X/S band radars
- 2 ECDIS
- 2 Gyros (3 repeaters)
- Pilot plug
- 1 AIS
- 2 GNSS
- VDR (Data, voice and video)
- RAI
- ROTI (tankers & Pax)

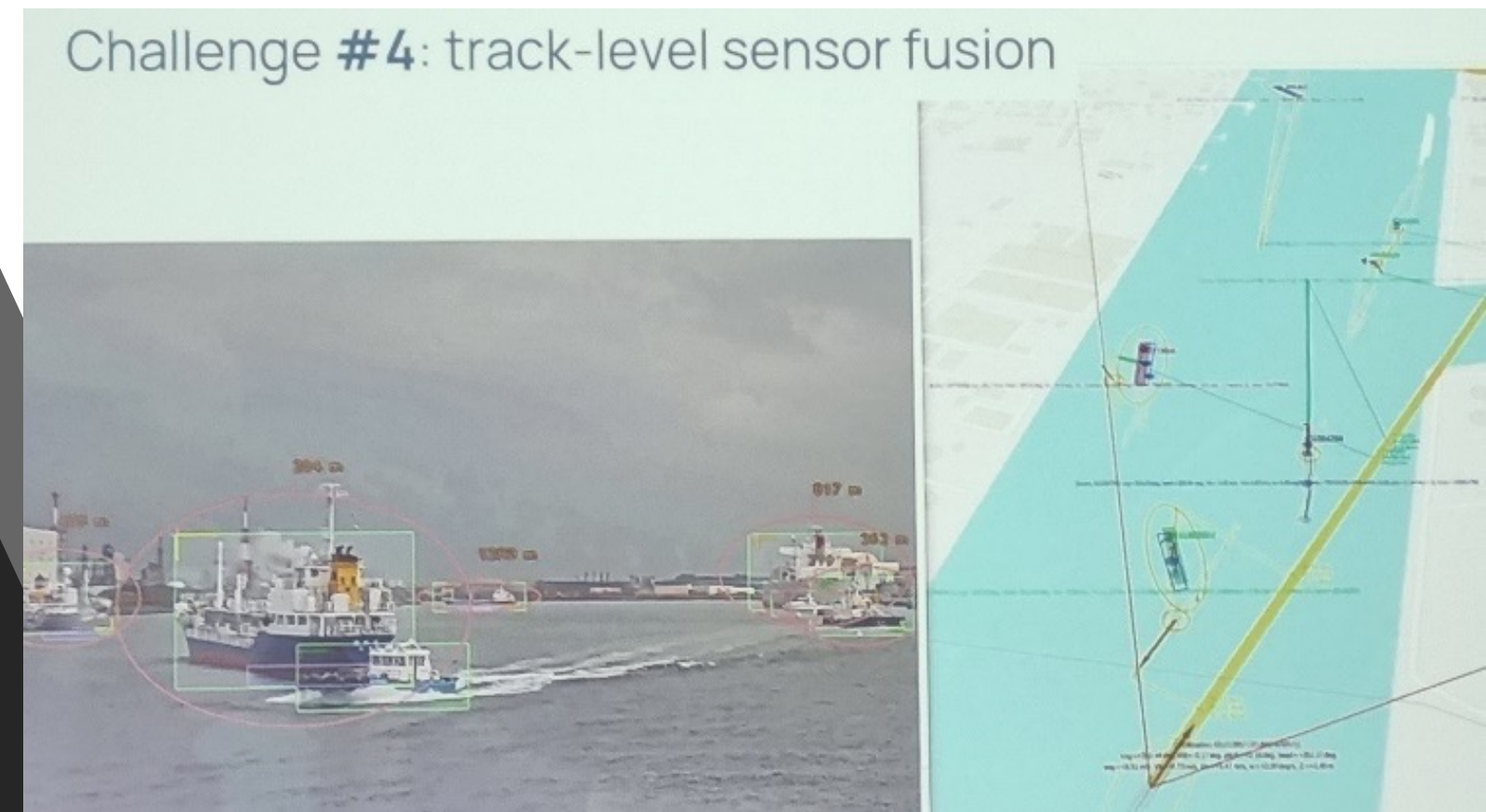


Shipowners: Build to MINIMUM SOLAS requirements to MAXIMIZE profits

Useful for Mariners Now



NATIONAL CENTRE OF EXPERTISE ON MARITIME PILOTAGE



Extract from Groke presentation at Autonomous Ship Expo 2022, Amsterdam.

What is realistic for the future of pilotage ?

- **Evolution rather than a revolution**
- **Green propulsion / Alternative Fuels**
- **Better decision support systems**
- **New skill sets**

Pilots are best positioned to help shape the future of navigation

Questions?

